EXHIBIT 23

EXHIBIT 23 – U.S. Patent No. 8,515,925

Claim 1	Accused Knox Suite Products[1]
[1PRE] A method for providing a clearinghouse for communications networks, comprising:	The Accused Knox Suite Products provide a network management platform through a network communication interface for managing mobile devices that interact with an enterprise network. The Accused Knox Suite Products include Knox Platform for Enterprise (KPE), Knox Mobile Enrollment (KME), Knox Manage, Knox E-FOTA, Knox Asset Intelligence (KAI), Knox Remote Support, Knox Capture, Knox Authentication Manager, Knox Configure, and Knox Guard. The Knox Service Guide v3.05 describes Knox Manage as an enterprise mobility management (EMM) platform that includes an EMM console that allows IT administrators to manage mobile devices enrolled with Knox Manage. Knox Service Guide v3.05, p. 7. The Knox Manage Client (e.g., application) is deployed to managed mobile devices when they are enrolled with Knox Manage. Knox Service Guide v3.05, p. 5. In one example, the managed mobile device can be configured, through the EMM application, to report device location information to the EMM console. See https://image-us.samsung.com/SamsungUS/samsungbusiness/pdfs/Samsung-KNOX-QuickStarts-3v05.pdf ("Knox Service Guide v3.05") **2.7. Device Policy Creation** Device policies are deployed when a device is enrolled in Knox Manage or can be pushed automatically to devices. Knox Manage implements a hierarchy policy set that allows policies to be deployed to all users, while other policies can then be deployed to a subset of users based on your business need. Some of the policies that can be configured include allowing users to use the camera, configure the device to report the devices location within the EMM console, and allowing users to wipe devices.

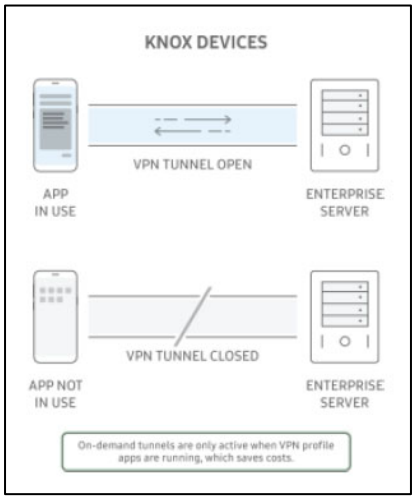
[1] Upon information and belief, all Accused Products function in a substantially similar manner for the relevant accused functionality.

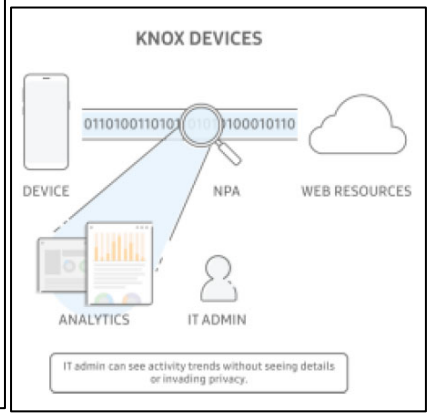
EXHIBIT 23 – U.S. Patent No. 8,515,925

Knox Service Guide v3.05, p. 7 (annotated).

Samsung published several documents outlining the functionality of Knox Suite, including user guides, promotional documents, and white papers. The figures below, from Samsung Knox White Paper v1.5, show the network communication interface that allows for the secure transfer of information between the managed mobile devices and enterprise servers on the enterprise network.

See https://image-us.samsung.com/SamsungUS/samsungbusiness/solutions/topics/iot/071421/Knox-Whitepaper-v1.5-20210709.pdf ("Knox White Paper v1.5")





Knox White Paper v1.5, pp. 35 (left), 37 (Right).

EXHIBIT 23 – U.S. Patent No. 8,515,925

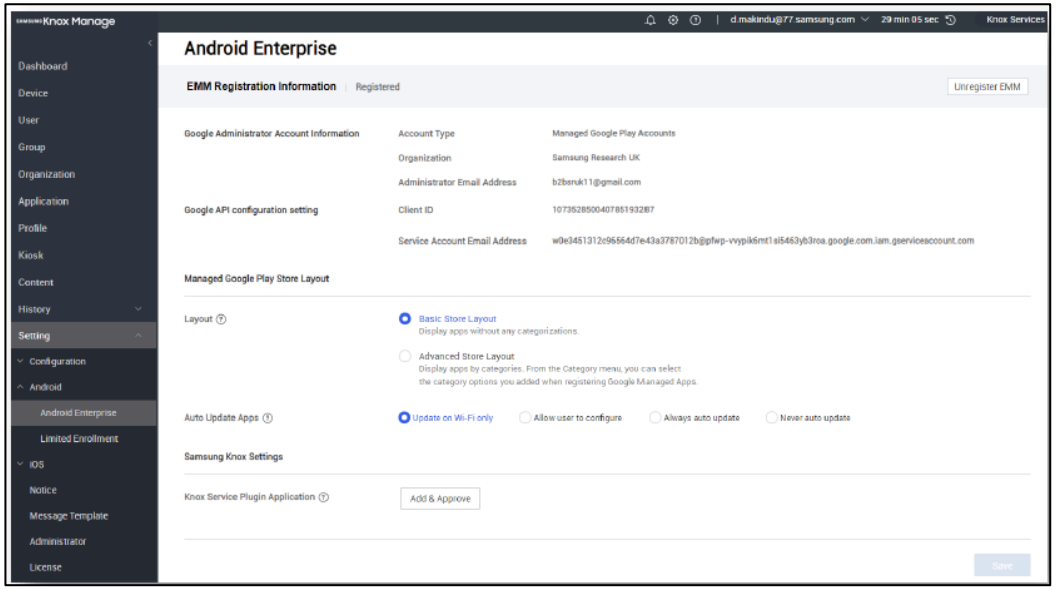
	The image below shows the EMM console of Knox Manage that allows the IT admin to enroll, configure, manage, or review information associated with the managed mobile devices. See https://docs.samsungknox.com/admin/knox-platform-for-enterprise/assets/knox-manage-knox-platform-for-enterprise-guide-v3.0.pdf ("Samsung Knox Manage 22.5")  **Samsung Knox Manage 22.5, p. 8**
[1A] providing one or more computers which interface with a database, the database including performance, quality of service, or perceived communications service quality or value information, experienced or desired, for one or more mobile or fixed devices or end	The Accused Clearinghouse Products, in the Samsung Knox Suite, provide a network communication interface between an IT admin through the EMM console and the EMM client on the managed mobile devices. The EMM console network communication interface provides a front-end interface for an IT administrator to manage, configure, and review information associated with managed mobile devices.

EXHIBIT 23 – U.S. Patent No. 8,515,925

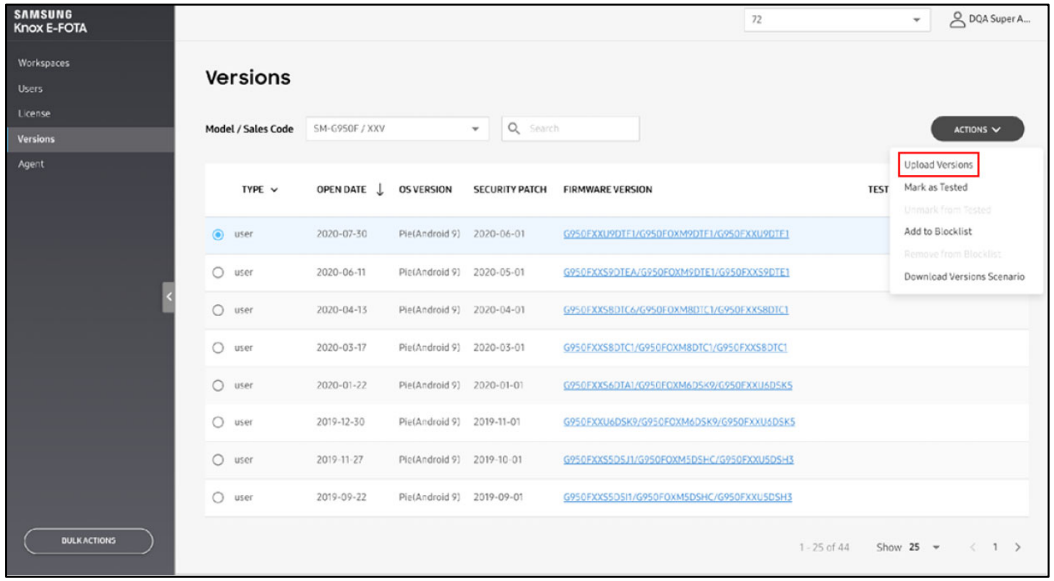
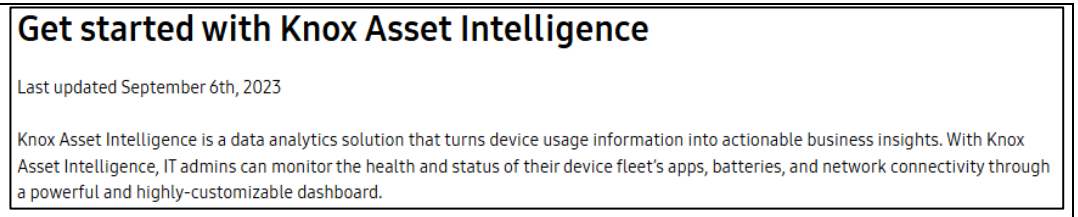
users, for one or more geographic locations of said one or more mobile or fixed devices, or end users, and one or more of records pertaining to one or more telecommunications carriers which identify infrastructure type and/or location information for one or more locations, and public records which include, for a plurality of geographic locations, one or more of: addresses, maps, location coordinates, or mapping information for said geographic locations, zoning information for said geographic locations, local ordinances for said geographic locations, contact information for government officials for said geographic locations, and information about one or more carriers serving said geographic locations;	The figure below shows the EMM console which provides a front-end interface for the IT administrator on a first computer device to review a database of mobile device profiles. The figure below, from Samsung's Knox E-FOTA On-Premises Admin Guide, shows a database of information corresponding to each mobile device managed by an employer. In this example, the EMM console accesses device information from a Knox database for user type, operating system version, security patch version, and firmware version for the managed mobile devices.  **Knox E-FOTA On-Premises Admin Guide, p. 15** The Knox Asset Intelligence (KAI) service, within the Knox Suite, allows the EMM console to monitor network information associated with each of the managed mobile device, as described in the below.

EXHIBIT 23 – U.S. Patent No. 8,515,925



Get started with Knox Asset Intelligence

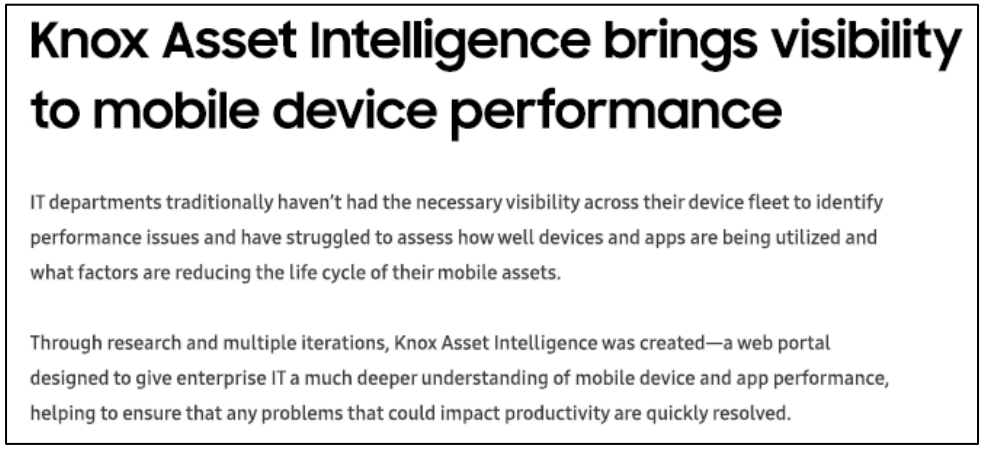
Last updated September 6th, 2023

Knox Asset Intelligence is a data analytics solution that turns device usage information into actionable business insights. With Knox Asset Intelligence, IT admins can monitor the health and status of their device fleet's apps, batteries, and network connectivity through a powerful and highly-customizable dashboard.

See https://docs.samsungknox.com/admin/knox-asset-intelligence/get-started/tutorials/get-started-with-knox-asset-intelligence/

In a KAI promotional document, Samsung describes the KAI service as "a web portal designed to give enterprise IT a much deeper understanding of mobile device and app performance."

See https://kp4-cdn.samsungknox.com/resource/Knox%20Asset%20Intelligence%20-%20Design%20feature_3k-O.pdf ("KAI Design Features")



Knox Asset Intelligence brings visibility to mobile device performance

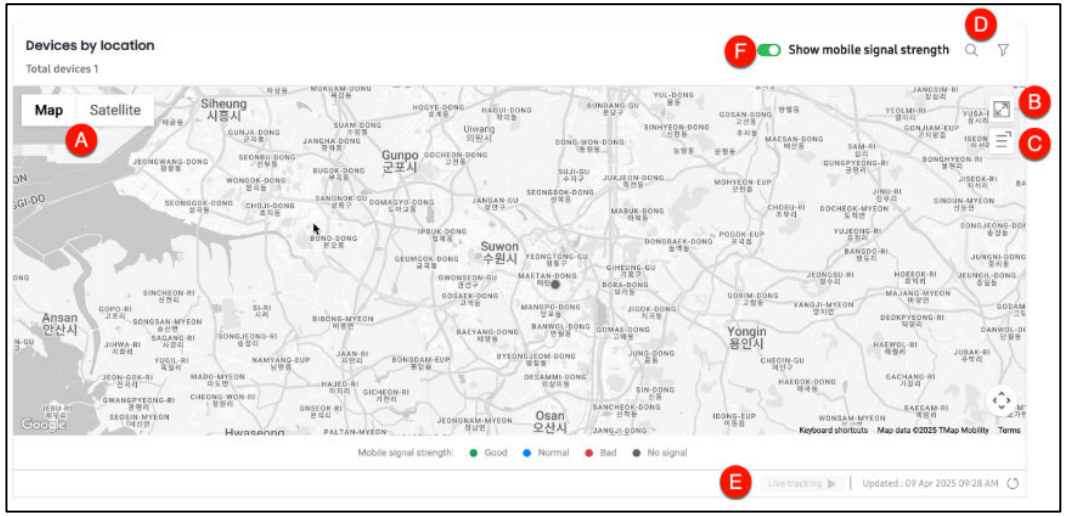
IT departments traditionally haven't had the necessary visibility across their device fleet to identify performance issues and have struggled to assess how well devices and apps are being utilized and what factors are reducing the life cycle of their mobile assets.

Through research and multiple iterations, Knox Asset Intelligence was created—a web portal designed to give enterprise IT a much deeper understanding of mobile device and app performance, helping to ensure that any problems that could impact productivity are quickly resolved.

KAI Design Features, p. 2

EXHIBIT 23 – U.S. Patent No. 8,515,925

The KAI service allows IT admins to track the location of managed mobile devices through a locations dashboard and interactive map (see below). The interactive map includes a toggle button (see F in the figure below) that allows the IT admin to view the mobile signal strength of a managed mobile device in real-time, at a specific location.

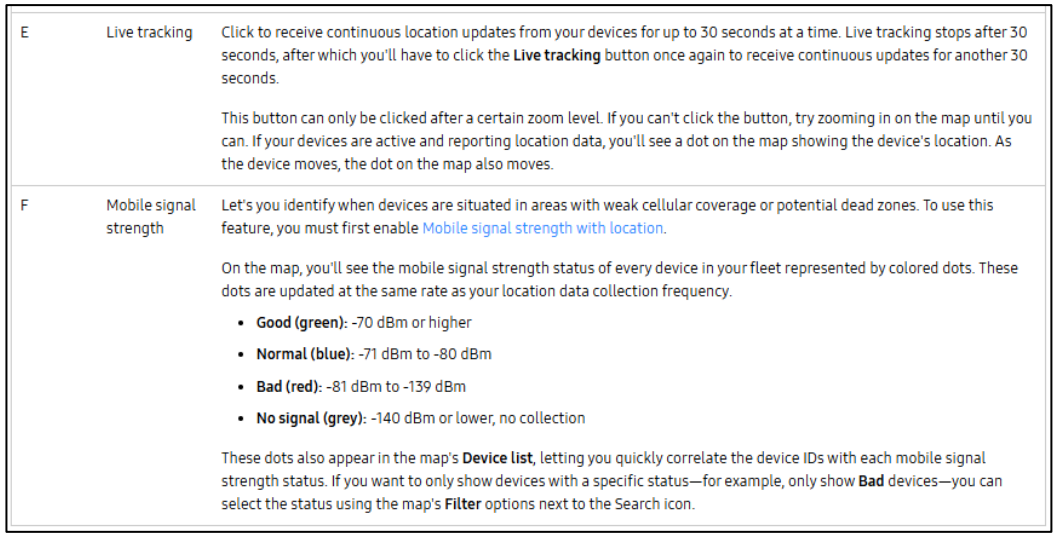


See https://docs.samsungknox.com/admin/knox-asset-intelligence/dashboard/location-dashboard/use-the-location-dashboard/

The table below describes the real-time data that is retrieved from the managed mobile devices, associated with the network performance and location of the managed mobile devices. The IT admin can view, through the EMM console, live tracking for up to 30 seconds at a time. The table below states that the mobile

EXHIBIT 23 – U.S. Patent No. 8,515,925

signal strength information, associated with managed mobile devices is "updated at the same rate as your location data collection frequency."



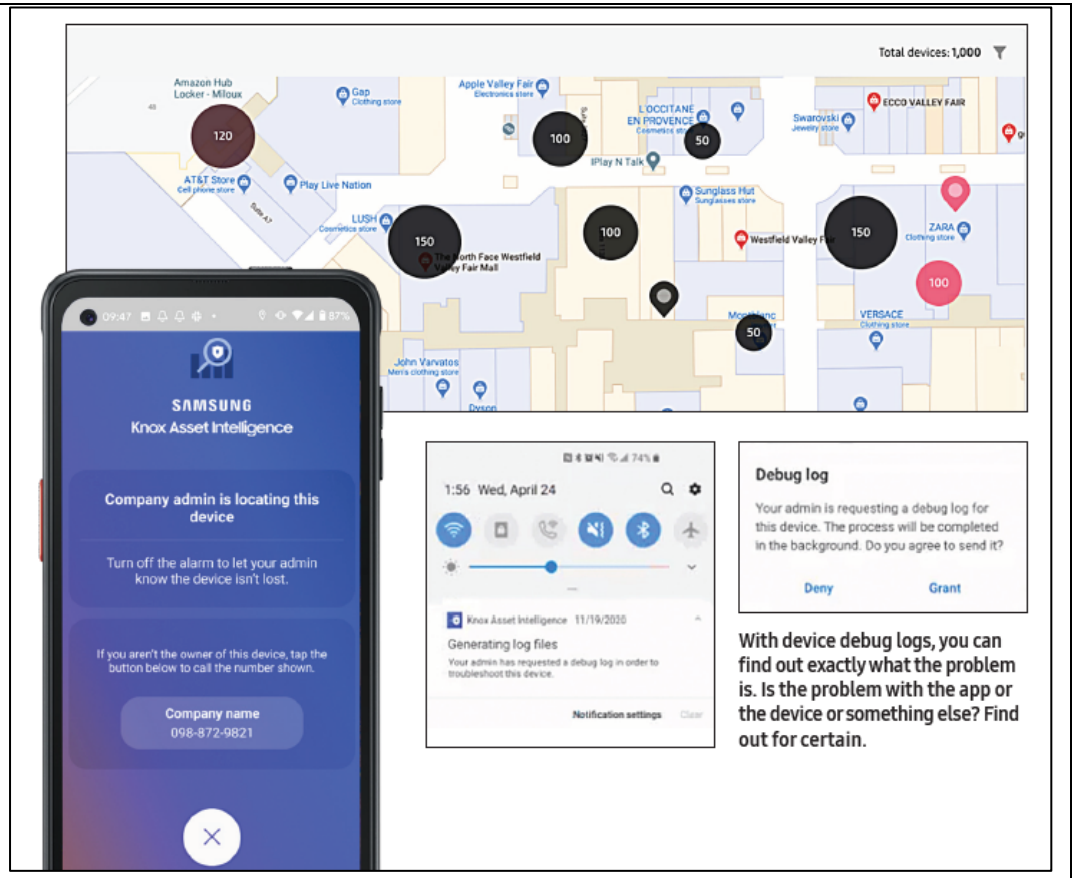
E	Live tracking	Click to receive continuous location updates from your devices for up to 30 seconds at a time. Live tracking stops after 30 seconds, after which you'll have to click the **Live tracking** button once again to receive continuous updates for another 30 seconds. This button can only be clicked after a certain zoom level. If you can't click the button, try zooming in on the map until you can. If your devices are active and reporting location data, you'll see a dot on the map showing the device's location. As the device moves, the dot on the map also moves.
F	Mobile signal strength	Let's you identify when devices are situated in areas with weak cellular coverage or potential dead zones. To use this feature, you must first enable Mobile signal strength with location. On the map, you'll see the mobile signal strength status of every device in your fleet represented by colored dots. These dots are updated at the same rate as your location data collection frequency. • **Good (green):** -70 dBm or higher • **Normal (blue):** -71 dBm to -80 dBm • **Bad (red):** -81 dBm to -139 dBm • **No signal (grey):** -140 dBm or lower, no collection These dots also appear in the map's **Device list**, letting you quickly correlate the device IDs with each mobile signal strength status. If you want to only show devices with a specific status—for example, only show **Bad** devices—you can select the status using the map's **Filter** options next to the Search icon.

See https://docs.samsungknox.com/admin/knox-asset-intelligence/dashboard/location-dashboard/use-the-location-dashboard/

The figure below shows another example of the interactive maps provided by the KAI service that allows the IT admin to track the location of the managed mobile devices.

See https://image-us.samsung.com/SamsungUS/samsungbusiness/solutions/services/mobility-software/Knox_Asset_Intelligence_Flyer.pdf ("Knox Asset Intelligence Flyer")

EXHIBIT 23 – U.S. Patent No. 8,515,925



Knox Asset Intelligence Flyer, p. 9

The data storage servers for the KAI service store data associated with the managed mobile devices in a queryable database as well as continuing to monitor, collect, and process, in automated fashion, data associated with the managed devices. The figure below shows the queryable available date ranges for specific data stored in the database.

EXHIBIT 23 – U.S. Patent No. 8,515,925

Data type	Data insight	Dashboard update rate	Available date ranges
Common	Device status	Real-time	Can only view data for Today
Battery	Battery status and state of health	Real-time	Can only view data for Today
	Low battery, Battery drain, and Charge events	Previous day	Can view data for Yesterday, or Last 7, 14, 30, or 60 days.
	Battery level at shift start	Real-time when viewing **Today's issues**, otherwise Previous day.	Can view data for Yesterday, or Last 7, 14, 30, or 60 days.
	Battery level at shift end	Previous day	Can view data for Yesterday, or Last 7, 14, 30, or 60 days.
App	App usage	Previous day	Can view data for Yesterday, or Last 7, 14, 30, or 60 days.
	App issues	Real-time sent hourly by default. Can be changed in Dashboard Settings.	Can view data for Today, Yesterday, or Last 7, 14, 30, or 60 days.
Network	Wi-Fi disconnections	Real-time	Can view data for Today, Yesterday, Last 7, or 14 days.
	Mobile network usage	Previous day	Can view data for Yesterday, or Last 7, 14, 30, or 60 days.
	Network latency response time	Previous day	Can view data for Last 7, 14, or 30, days.
System	Storage usage status	Real-time every every 3 hours.	Can only view data for Today.
Scan	Scanning performance	Real-time when viewing data for **Today**, otherwise Previous day.	Can view data for Today, Yesterday, or Last 7, 14, 30, or 60 days.
KSP	Knox Service Plugin	Real-time	Can only view data for Today.
Location	Location status	Real-time	Can only view data for Today.
Security	Warranty bit	Real-time	Can only view data for Today.

See https://docs.samsungknox.com/admin/knox-asset-intelligence/dashboard/overview/

The figure below shows data analytics provided by the KAI service which from the database associated with the manage mobile devices. The EMM console provides data analytics to the IT admin which are automatically tracked and

EXHIBIT 23 – U.S. Patent No. 8,515,925

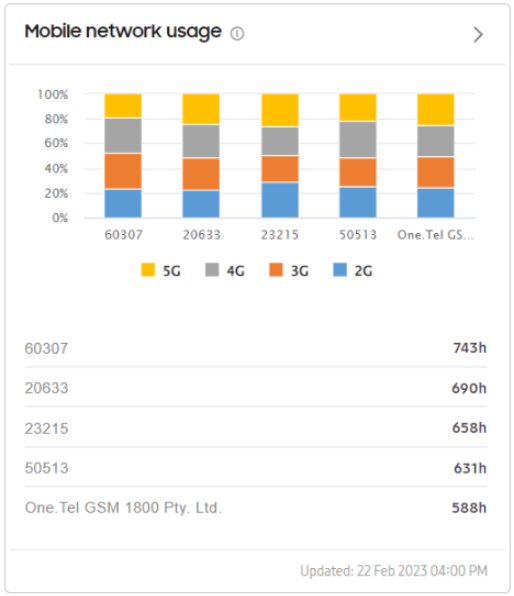
	tabulated using a computer, that summarizes the cumulative mobile network usage by all managed mobile devices, based on the network generation and telecommunication carrier (shown as Mobile Country Codes, Mobile Network Codes, or carrier name).  *See* https://docs.samsungknox.com/admin/knox-asset-intelligence/dashboard/network-insights/mobile-network-usage/ The figure below shows more granular data analytics for mobile network usage provided by the KAI service. This infographic parses telecommunication carrier usage by the number of managed mobile device enrolled for an example employer, over a 7-day period.

EXHIBIT 23 – U.S. Patent No. 8,515,925

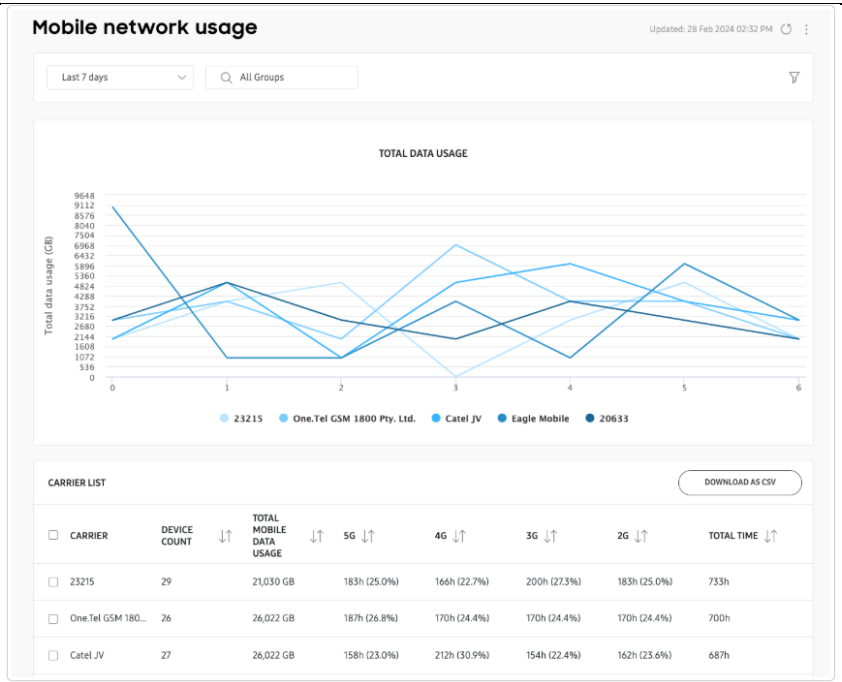
	 *See* https://docs.samsungknox.com/admin/knox-asset-intelligence/dashboard/network-insights/mobile-network-usage/
[1B] updating in said database either automatically or manually, using one or more electronic interfaces to said one or more computers, performance, quality of service, or perceived communications service quality or value information, experienced or desired, obtained for one or more mobile or fixed	The locations dashboard manually or automatically updated to provide live tracking of managed mobile devices, for up to 30 seconds at a time. The table below states that the mobile signal strength information, associated with managed mobile devices is "updated at the same rate as your location data collection frequency." Mobile signal strength information is quality or service information associated with at least one mobile device or end user associated with one or more wireless communications networks, mobile devices, or end users.

EXHIBIT 23 – U.S. Patent No. 8,515,925

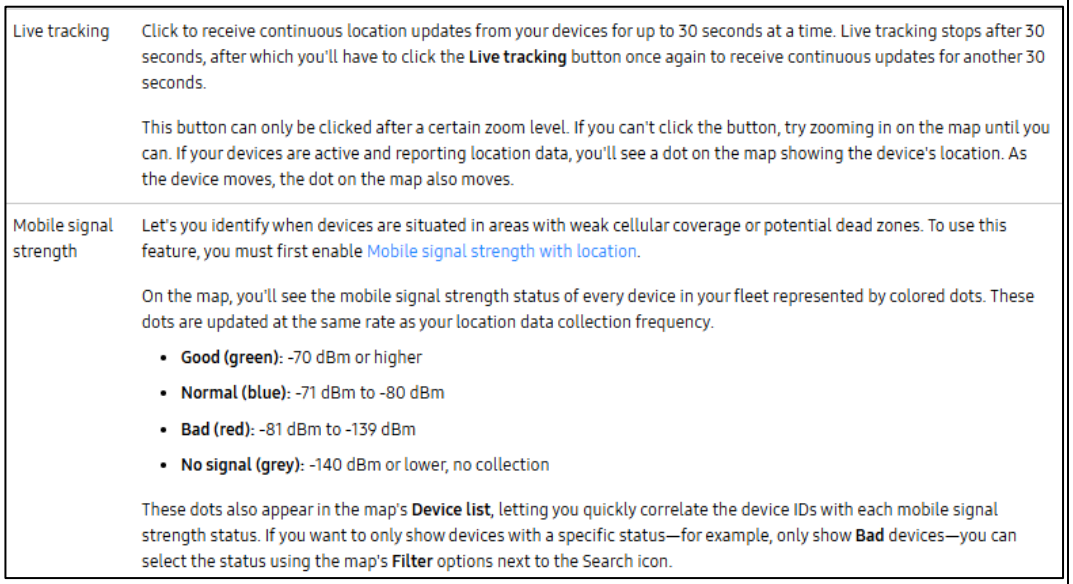
devices that are located in one of said one or more geographic locations;	 Live tracking: Click to receive continuous location updates from your devices for up to 30 seconds at a time. Live tracking stops after 30 seconds, after which you'll have to click the **Live tracking** button once again to receive continuous updates for another 30 seconds. This button can only be clicked after a certain zoom level. If you can't click the button, try zooming in on the map until you can. If your devices are active and reporting location data, you'll see a dot on the map showing the device's location. As the device moves, the dot on the map also moves. Mobile signal strength: Let's you identify when devices are situated in areas with weak cellular coverage or potential dead zones. To use this feature, you must first enable Mobile signal strength with location. On the map, you'll see the mobile signal strength status of every device in your fleet represented by colored dots. These dots are updated at the same rate as your location data collection frequency. • **Good (green):** -70 dBm or higher • **Normal (blue):** -71 dBm to -80 dBm • **Bad (red):** -81 dBm to -139 dBm • **No signal (grey):** -140 dBm or lower, no collection These dots also appear in the map's **Device list**, letting you quickly correlate the device IDs with each mobile signal strength status. If you want to only show devices with a specific status—for example, only show **Bad** devices—you can select the status using the map's **Filter** options next to the Search icon. *See* https://docs.samsungknox.com/admin/knox-asset-intelligence/dashboard/location-dashboard/use-the-location-dashboard/
[1C] permitting at least one of said one or more telecommunications carriers or one or more end users of said one or more telecommunications carriers, or one or more parties which are not telecommunications carriers or end users to review, catalog, store, view, use, or sort said performance, quality of service, or perceived communications service quality or value	The Accused Knox Suite Products allow the IT admin to view, use, and sort network performance data of managed mobile devices in the EMM console and the EMM client on the managed mobile devices.

EXHIBIT 23 – U.S. Patent No. 8,515,925

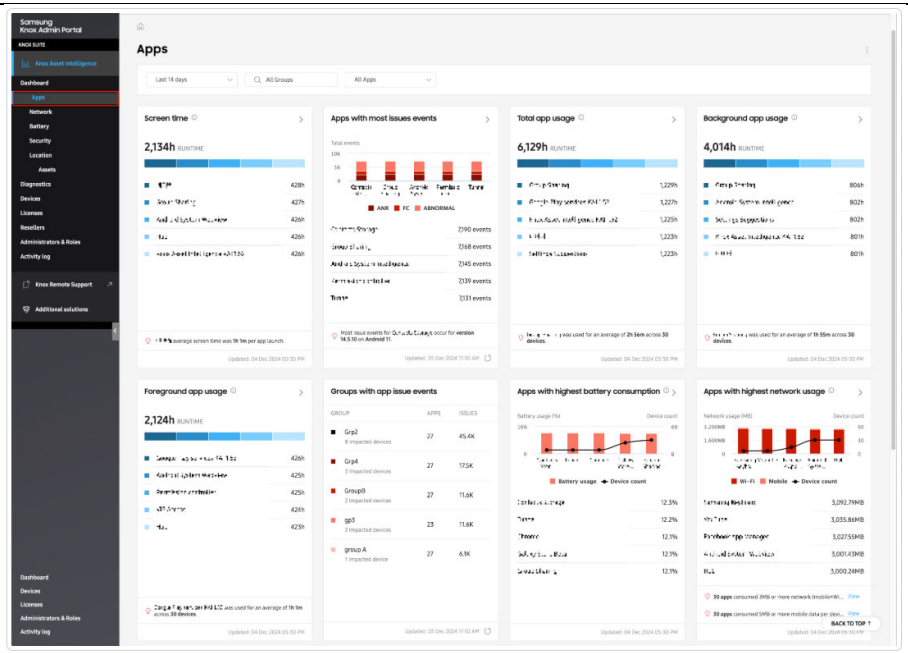
information, experienced or desired, in said database;	 *See* https://docs.samsungknox.com/admin/knox-asset-intelligence/dashboard/app-insights/app-usage/overview/
[1D] obtaining said performance or quality of service or perceived communications service quality or value information, experienced or desired, using one or more applications operable with said one or more mobile or fixed devices or said one or more computers; and	The Accused Knox Suite Products allow the IT admin to obtain network performance data through the EMM console (e.g., applications). The EMM console can access the following network performance data from the managed devices:

EXHIBIT 23 – U.S. Patent No. 8,515,925

Network

This section displays Wi-Fi consumption data related to your device. Information displayed is based on the last time the device connected to a Wi-Fi connection. The following information is available:

- **Network name (SSID)**: Service Set Identifier, the unique name assigned to the network.
- **AP Vendor**: Name of the Wi-Fi access point manufacturer.
- **AP BSSID**: Access Point Basic Service Set Identifier, the unique MAC (Media Access Control) address that identifies the access point.
- **Wi-Fi strength (RSSI)**: Received Signal Strength Indicator, the measure of the Wi-Fi signal's power level typically ranging from -30 dBm (very strong signal) to -90 dBm (very weak signal).
- **Bands**: Frequency range used by the Wi-Fi network to transmit data.
- **Linkspeed**: Maximum data transfer speed between the AP and the client (this device), measured in megabits per second (Mbps).
- **Last connected time**: Date and time the device last connected to a Wi-Fi network.
- **Wi-Fi calling**: Indicator of whether the device is configured for Wi-Fi calling, or if Wi-Fi calling is unsupported by the device.

See https://docs.samsungknox.com/admin/knox-asset-intelligence/how-to-guides/manage-devices/

The document excerpt below further describes management features of the Knox Suite that allows the IT admin to obtain network statistics through the EMM console. See https://images.samsung.com/is/content/samsung/p5/ch/business/enterprise-edition/Knox_Platform_for_Enterprise_Whitepaper_2019.pdf ("Knox Whitepaper")

EXHIBIT 23 – U.S. Patent No. 8,515,925

Advanced App Management

Enterprises need a strong Mobile Application Management (MAM) strategy to deploy apps effectively, manage app licenses, secure apps, optimize app usage, and handle app data safely. The Knox platform provides comprehensive app management capabilities that allow IT admins to control all aspects of apps installed on a device. These capabilities can also be extended inside the work profile to provide a safe haven for sensitive apps and data.

Enterprises use EMM solutions to centrally configure and remotely manage apps. Knox provides a full complement of management functions, providing IT admins with the ability to:

- Install, uninstall, update, enable, disable, start, stop, or wipe data for an app
- Allow or block the following:
  - apps that can be installed
  - apps that can auto-update
  - apps that can use the Clipboard
  - apps that can be started and stopped by users
  - apps that can access the USB port
  - app accounts, permissions, and notifications
- Disable or enable other apps like Google Play, Google Chrome, Voice Dialer, and YouTube
- Get info like the app code size, cache size, data size, total size, notification mode, and restrictions
- Get statistics like app launch count, component state, app focus state, CPU usage, data size, memory usage, and network stats

Knox Whitepaper, p. 59 (annotated).

In another example, the managed mobile device can be configured, through the EMM application, to report device location information to the EMM console.

2.7. Device Policy Creation

Device policies are deployed when a device is enrolled in Knox Manage or can be pushed automatically to devices. Knox Manage implements a hierarchy policy set that allows policies to be deployed to all users, while other policies can then be deployed to a subset of users based on your business need. Some of the policies that can be configured include allowing users to use the camera, configure the device to report the devices location within the EMM console, and allowing users to wipe devices.

Knox Service Guide v3.05, p. 7 (annotated).

EXHIBIT 23 – U.S. Patent No. 8,515,925

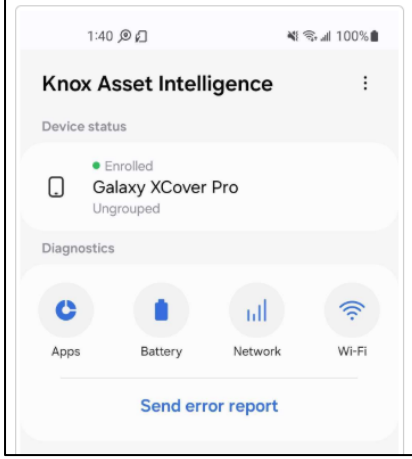
[1E] providing said performance or quality of service or perceived communications service quality or value information, experienced or desired, to said one or more electronic interfaces using one or more applications operable with said one or more mobile or fixed devices or said one or more computers,	The Accused Knox Suite Products allow the EMM application on the managed mobile device to provide network performance information to the IT admin through the EMM console. The excerpt below describes that the EMM application on the managed mobile device can collect health and network information associated with the performance of the managed mobile device and send the information to the Knox server. The collected information is provided to the IT Admin through various dashboards in the EMM console. The Knox Asset Intelligence agent is responsible for enrolling devices into the service, collecting device health and usage information, and sending this information back to the server to be converted into meaningful dashboard insights. Once the agent app is downloaded and installed, device users simply launch the app to let the agent begin collecting data.  *See* https://docs.samsungknox.com/admin/knox-asset-intelligence/how-to-guides/use-the-agent-app/

EXHIBIT 23 – U.S. Patent No. 8,515,925

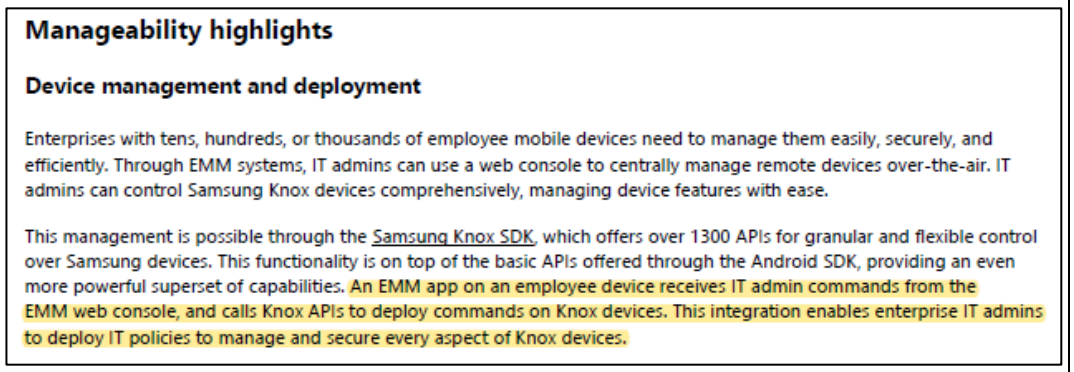
	The document excerpt below describes that the managed mobile device can receive commands at the EMM application on the device to provide data through a Knox API to the EMM console.  **Manageability highlights** **Device management and deployment** Enterprises with tens, hundreds, or thousands of employee mobile devices need to manage them easily, securely, and efficiently. Through EMM systems, IT admins can use a web console to centrally manage remote devices over-the-air. IT admins can control Samsung Knox devices comprehensively, managing device features with ease. This management is possible through the Samsung Knox SDK, which offers over 1300 APIs for granular and flexible control over Samsung devices. This functionality is on top of the basic APIs offered through the Android SDK, providing an even more powerful superset of capabilities. An EMM app on an employee device receives IT admin commands from the EMM web console, and calls Knox APIs to deploy commands on Knox devices. This integration enables enterprise IT admins to deploy IT policies to manage and secure every aspect of Knox devices. **Knox Whitepaper v1.5, p. 7 (annotated).**
[1F] wherein said performance or quality of service information or perceived communications service quality or value information includes information from one or more bands, one or more carriers, one or more mobile or fixed devices, or one or more end users from one or more bands or carriers	The Accused Knox Suite Products collect network performance data from the EMM application, where the network performance data is from the managed mobile device. *See* claim elements [1A]-[1E] above.
Claim 4	**Accused Knox Suite Products**
[4] The method of claim 1 further comprising the step of sending instructions from one of said one or more electronic interfaces to one or more wireless devices for configuring or reconfiguring said one or more wireless devices	The Accused Knox Suite Products allow the user of the managed mobile device to request support in response to network performance issues. The IT admin can configure network setting on the managed mobile device in response to the request.

EXHIBIT 23 – U.S. Patent No. 8,515,925

based on one or more of: ranking of performance, enhanced spectrum usage, control of interference, or requests of an end user.	The excerpt below describes features of the Knox Configure service that allows IT admins to reconfigure device settings on a managed mobile device, including network settings. **Device management services** To address a variety of business needs beyond security, the Samsung Knox portfolio is complemented by robust cloud services that ease mobile device deployment, customization, and management. These services include: • **Knox Mobile Enrollment** — With this free service, enterprises can use a web console or REST API calls to automate device enrollment, either individually or in bulk. After an IT admin registers a device with this service, the device user simply turns it on and connects it to a Wi-Fi or 3G/4G/5G mobile network to enroll it with an EMM system. There is no manual enrollment of individual devices, and no need for IMEI management and verification – all onerous, time-consuming, and error-prone tasks. • **Knox Configure** — Samsung phones, tablets, and wearables are fully customizable to work in numerous vertical markets such as hospitality, retail, and entertainment. Through a web console, Systems Integrators can create purpose-built devices that present a customized user interface, for example, an information kiosk, point-of-sales terminal, or in-flight entertainment system. The Systems Integrators can customize or restrict almost all aspects of device configuration and the user experience, including boot animations incorporating custom enterprise logos, display settings, wallpapers, network configurations, notifications, and software updates. **Knox Whitepaper v1.5, p. 52 (annotated).** **6.4. Review desired capability** Before developing a configuration profile or profiles to meet your business need, Samsung will review with you, your desired end state. In addition Samsung will discuss Knox Configures capabilities and how they can meet those needs. Some of the capabilities that can be implemented in device profiles are: - Applications & EMM deployment • Configure the automatic deployment of applications on initiation of the device • Automatic Enrollment of your EMM (Knox Manage) when the device first connects. • Dynamically update apps and configurations. (Knox Configure Dynamic only) • Skip unwanted setup wizard steps during installations

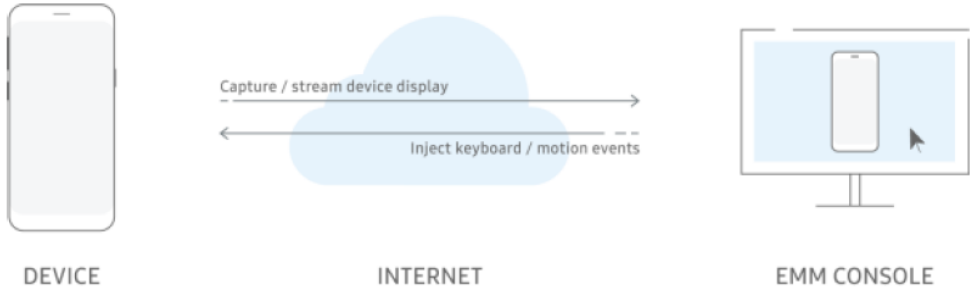
EXHIBIT 23 – U.S. Patent No. 8,515,925

Knox Service Guide v3.05, p. 13 (annotated).

In another example, the IT admin can use the EMM console remotely to resolve problems with the managed mobile device, based on a support request from the user of the managed device. (See remote control excerpts below).

Remote Control

With the increasing complexity of problems that IT admins must solve, Knox Remote Control provides IT admins a powerful way to quickly and remotely fix issues. Not only can IT admins have real-time access to what the remote device screen is displaying, but also control it by injecting actions such as finger, keyboard, and mouse events. Although other mobile platforms also offer remote viewing of remote device displays, only Knox provides built-in remote control of devices without requiring third-party solutions.



Here is an example use case: An enterprise employee is on a business trip. On encountering a problem with the company-issued mobile phone, the employee contacts an enterprise IT admin. The IT admin uses an EMM console to remotely view the device screen to observe the issue first hand, then remotely controls the device, through finger, mouse, or keyboard actions. The IT admin directly accesses the environment to remotely debug the issue on the device. The employee is now quickly productive, without the frustrating downtime associated with relaying instructions verbally or through email.

The continuous polling of the device screens doesn't impact device performance as devices send only screen changes.

Knox Whitepaper v1.5, p. 52.

EXHIBIT 23 – U.S. Patent No. 8,515,925

	2.8. Remote Device control (Knox Manage only) Knox Manage provides the capability for an administrator to take remote control of a managed device (with the user's agreement) and allow the administrator to view and control the users screen, allowing for remote faultfinding of issues without needing the device to be present. Samsung will show you how to enable this functionality and demonstrate its use. **Knox Service Guide v3.05, p. 8.** Knox can also provide advanced Wi-Fi policy controls that allow administrators to manage Wi-Fi settings on devices, and these controls can be configured to enforce specific Wi-Fi constructions, restrict connections on certain networks, and adjust settings to optimize connectivity. See docs.samsungknox.com/admin/knox-platform-for-enterprise/knox-service-plugin/policies.html. Also, administrators for an enterprise employing the Knox suite can use E-FOTA to deploy firmware versions that address known Wi-Fi issues. For instance, if a particular firmware update includes enhancements to Wi-Fi stability, it can be selectively pushed to affected devices. See docs.samsungknox.com/admin/efota-one/assets/knox-efota-on-premises-admin-guide.pdf. Thus, the Knox Suite Products also sending instructions based on enhanced spectrum usage and/or control of interference. Adjusting device behavior to optimize how it uses WiFi frequency bands can enhanced spectrum usage by, for example, improving utilization of available spectrum resources. Additionally, an enterprise pushing configuration instructions or firmware updates to change transmit power, channel selection, or band preference to reduce interference, is an example of controlling interference through device-side instructions.
Claim 12	**Accused Knox Suite Products**

EXHIBIT 23 – U.S. Patent No. 8,515,925

[12PRE] A clearinghouse system for communications networks, comprising:	See claim element [1PRE] above.
[12A] one or more computers which interface with a database, said database including performance, quality of service, or perceived telecommunications service quality or value information, experienced or desired, for one or more mobile or fixed devices or end users for one or more geographic locations of said one or more mobile or fixed devices or end users, and one or more of records pertaining to one or more telecommunications carriers which identify one or more of infrastructure, type, and/or location information for one or more locations, records for one or more end users which identify one or more of equipment, devices, telecommunications assets, and property assets owned, controlled or used by said one or more end users, and public records which include, for a plurality of geographic locations, one or more of: addresses, maps, location coordinates, or mapping information for said geographic locations, zoning information for said geographic locations, local ordinances for said geographic locations, contact information for government	See claim element [1A] above.

EXHIBIT 23 – U.S. Patent No. 8,515,925

officials for said geographic locations, and information about one or more carriers serving said geographic locations; and	
[12B] one or more electronic interfaces to said one or more computers which permit performance, quality of service, or perceived communications service quality or value information, experienced or desired, obtained for one or more mobile or fixed devices that are located in one of said one or more geographic locations to be automatically or manually updated into said database, and which permit at least one of said one or more telecommunications carriers or one or more of said end users or one or more parties which are not telecommunications carriers or end users to review, catalog, store, view, sort, or use said performance, quality of service, or perceived communications service quality or value information, experienced or desired, in said database; and	See claim elements [1B] and [1C] above.
[12C] a monitoring application which permits monitoring of radio operating conditions for one or more mobile or fixed wireless devices, wherein monitored radio operating conditions are used to update performance or quality of service information or perceived	The Accused Knox Suite Products allow the EMM application on the managed mobile device to provide network performance information to the IT admin through the EMM console, where the IT admin can monitor managed devices through the EMM console. The document below describes that the EMM application on the managed mobile device can collect health and network information associated with the

EXHIBIT 23 – U.S. Patent No. 8,515,925

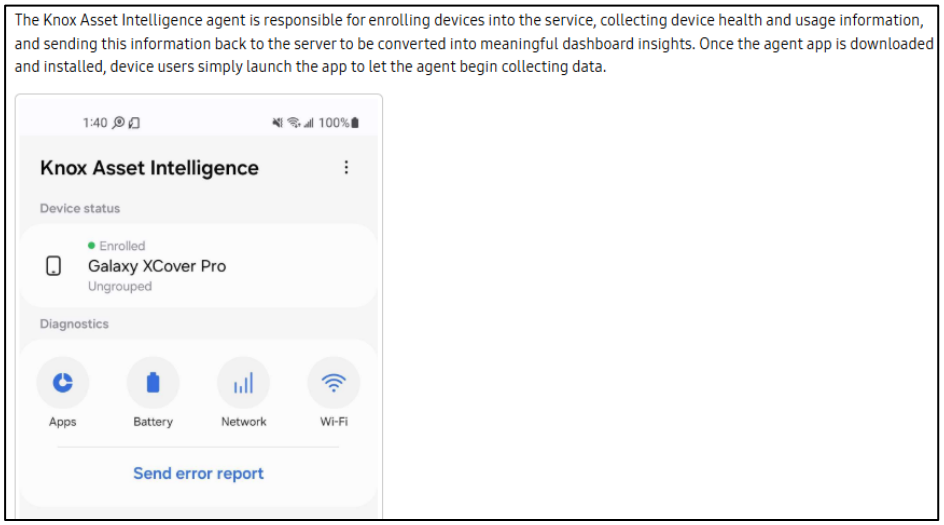
communications quality or service value in said database,	performance of the managed mobile device and send the information to the Knox server. The collected information is provided to the IT Admin through various dashboards in the EMM console, allowing the IT admin to monitor the managed mobile devices through the EMM console.  *See* https://docs.samsungknox.com/admin/knox-asset-intelligence/how-to-guides/use-the-agent-app/ The document excerpt below describes that the managed mobile device can receive commands at the EMM application on the device to provide data through a Knox API to the EMM console.

EXHIBIT 23 – U.S. Patent No. 8,515,925

	Manageability highlights **Device management and deployment** Enterprises with tens, hundreds, or thousands of employee mobile devices need to manage them easily, securely, and efficiently. Through EMM systems, IT admins can use a web console to centrally manage remote devices over-the-air. IT admins can control Samsung Knox devices comprehensively, managing device features with ease. This management is possible through the Samsung Knox SDK, which offers over 1300 APIs for granular and flexible control over Samsung devices. This functionality is on top of the basic APIs offered through the Android SDK, providing an even more powerful superset of capabilities. An EMM app on an employee device receives IT admin commands from the EMM web console, and calls Knox APIs to deploy commands on Knox devices. This integration enables enterprise IT admins to deploy IT policies to manage and secure every aspect of Knox devices. **Knox Whitepaper v1.5, p. 7 (annotated).**
[12D] wherein said performance or quality of service information or perceived communications quality or service value includes information from one or more bands, one or more carriers, one or more mobile or fixed devices, or one or more end users from one or more bands or carriers.	See claim element [1F] above.
Claim 14	**Accused Knox Suite Products**
[14] The clearinghouse system of claim 12 further comprising means for sending instructions from one of said one or more electronic interfaces to one or more wireless devices for configuring or reconfiguring said one or more wireless devices based on one or more of: a ranking of performance, enhanced	See claim [4] above.

EXHIBIT 23 – U.S. Patent No. 8,515,925

spectrum usage, control of interference, or requests of an end user.	